# ROPE ACCESS 案例4: FLARE MODIFICATION 绳索访问方案进行火炬改造

#### Challenge

The client required modifications to a flare ignition system, including the change out of a flare tip, to be conducted during a planned turnaround (TAR).

The project had to be completed within four days so that other key TAR activities could be executed. The height of the flare (140ft.) and tight timeline meant that conventional access methods, such as scaffolding or man lifts, could not be used.

#### Solution

Stork deployed a multi-disciplined rope access team to deliver the complete scope along a vertical height of 140ft on the wet and dry flare stacks:

- Removed 600ft of 1" electrical conduit
- Installed 600ft of 1" threaded piping
- Cut and removed 50 U-clamps Installed four uni-strut brackets
- Hydraulically torqued flanges to specification

"I would like to extend thanks and appreciation to the Stork rope access and torquing crew for their work which allowed us to successfully complete the Flare Ignition Upgrade project on Train 1 Wet and Dry flare. The project was completed within schedule, despite many challenges and without any significant safety incident. The Stork team demonstrated a high level of professionalism during the activity"

#### 用户评价 Keshva Lalla Team Lead O&M Engineer, Atlantic





#### Client benefits 用户受益

### Significant cost-savings 显著节省费用

Stork's rope access approach reduced project costs by 33%, when compared with scaffolding

#### Reduced project lead time 缩短项目时间

Stork executed the scope in four days, compared with approximately three weeks if scaffolding was used.

# Safe service delivery 安全

The project was delivered on time, within budget and with no safety or environmental incidents, despite challenging weather conditions.

### Project fast-facts

**Project:** Flare modification

Client: Atlantic Location: Trinidad

**Services:** Multi-disciplined rope access, mechanical services **Date:** 2016

# Challenge

The client's new refinery could not be commissioned until a pressure loss issue in the gas supply line to the flare pilot flame was resolved. Using traditional access methods - such as scaffolding – to find and remedy the cause of the pressure loss, would have taken up to six weeks, resulting in a delay of the start-up date that had been agreed with the government.

案例5:

ROPEACCESS

INSPECTION

#### Solution

Stork mobilised a multi-disciplined rope access team and quickly identified and remedied the issue through an inspection and testing program while suspended at height.

"This is a totally new technique and a process which we think has many advantages. I think this was the most economical option, it can be used safely and brings benefits. On behalf of Reficar I would like to say that we were very satisfied."

# 用户评价 Asdrúbal Rodríguez, Ecopetrol





#### Benefits 用户受益

使用绳索方案进行检查

- The use of rope access reduced the project timeline from up to six weeks to 10 days, allowing the plant to start-up by the agreed date
- The use of rope access greatly increased safety as it limited the amount of exposed personnel on-site and reduced the potential for dropped object hazards
- The work scope was completed on time, within budget with no safety or environmental incidents

"The advantages (of using Stork Masa rope access) was the speed with which the work is done; the professionalism in managing the risks involved; and the effectiveness of the work as the desired result was really achieved. It was a positive experience with which we were quite satisfied."

## Alfonso Núñez, Ecopetrol

## **Project FastFacts**

**Project**: Rope access inspection and repair of leaks in flanges and threaded fittings

Client: Ecopetrol

**Location**: Cartagena, Colombia **Service**: Special

maintenance services

Date: 2015

